

**A Report on
The CTE Visioning Conference**

**Building a Vision for the Future
of
Career and Technical Education in Maine**

Sponsored by the Maine Department of Education

Portland

June 15-17, 2004

Introduction

This report documents the three-day conference held on June 15-17, 2004, in which approximately 80 stakeholders in Maine's Career and Technical Education system (CTE) gathered at the Portland Arts and Technology High School to begin a process intended to produce a strategic plan for CTE by the fall of 2004. Over the summer, the statewide CTE Advisory Committee will further develop the plan, in preparation for a follow-up conference of the stakeholders scheduled for September 15, 2004.

The objective for the CTE Visioning Conference was:

To begin developing a bold, compelling plan for the future of Career and Technical Education in Maine, including:

- A statement of the positive core of CTE – the forces that give life and meaning to its work;
- A shared vision of CTE in Maine in 2010, in the light of changes in the workplace and in education;
- Design elements of the CTE system in the future;
- A clear statement of the mission of CTE.

The focus question of the conference asked,

*How will public education in Maine continue to adapt
to meet the changing needs of society and our children,
and what role will CTE play in that?*

Participants included people from various sectors, with diverse perspectives: CTE directors, instructors, and students; high school and elementary principals and teachers; superintendents and school board members; presidents and professors in public and private post-secondary institutions; representatives from business and industry and from economic development; and individuals from state government, including the Department of Education. The conference featured the presence of Willard Daggett, president of the International Center for Leadership in Education, who gave the keynote address and acted as resource person throughout the conference.

This report contains the essential work of the conference, beginning with highlights of Willard Daggett's presentations, which is followed by the participants' products: the positive core of the CTE system, external factors and forces influencing the system now and in the future, visionary statements about aspects of CTE in 2010, proposed system design elements and strategies for the future, and suggestions for a new mission statement for the CTE system in Maine.

Presentations by Willard Daggett

On the first morning, Dr. Daggett's keynote address, "CTE at a Crossroads," established the context for the visioning conference. Noting that the business sector is driving the need for school reform, he emphasized the business community's demand for higher academic standards and concluded that "what we *don't* need are the traditional academic and CTE curricula and standards." Rather, he said, we need a higher level of student attainment, based on a combination of "high knowledge and high, multi-disciplinary application."

However, as Daggett sees it, the struggle in education is not about *what* we need to do; it's about *how* to do it. If we attempt, in his words, to "neutralize traditions, rules, certifications, and traditional leadership," people in every aspect of the educational system become advocates for their tradition, their rules, the importance of whatever it is they do. Daggett noted that time constraints prohibit teaching and learning all that schools are currently committed to and challenged conference participants to consider the question, *What do we need to get rid of?* Every piece of the curriculum has its advocates, and thus the difficulty of creating change.

Daggett's own answer to the question was, first, to get rid of the 30% of the assessment indicators that are unnecessary and, second, to put the top-priority indicators in both academic and CTE classes, so students will encounter them in two different contexts. As for managing the change process in the educational system, he urged a process of cultural change, in which leaders invite rather than force people to change, and then give their support to those willing to make changes.

On the second morning, Willard Daggett spoke about recent developments in CTE across the country. He shared the findings from his staff's analysis of 30 high-performing high schools, focusing on six principles they follow:

1. Rigor and relevance for *all* students
2. Teaching to students' interests, learning styles, and aptitudes
3. Decisions about organization, policy, and resources based on needs of students, not adults
4. Use of data in the classroom
5. Awareness of the need for change and the causes of successful change
6. A systems approach to a broad spectrum of the needs of *all* students

He then identified nine characteristics of the high-performing schools:

- Small learning communities
- High expectations, especially about literacy
- A fundamentally different 9th-grade experience for those not ready:
 - Enrichment, not remediation
 - Options for study, based on student interests – "a year away from the academic curriculum"
 - Taught by most successful teachers, with clear learning outcomes in math, reading, science, etc.
 - Teachers stay with the students through four years
 - Four years of requirements collapsed into 10th-, 11th-, 12th-grades

- 60-80% of students, who are ready for high school, complete requirements in 9th-through 11th-grades, with senior year as AP year; many graduate with a number of college credits completed
- Data used in classroom
- Curriculum: moving from “grade equivalent” literacy to Lexile Framework
- An emphasis on relationships: between teachers and students; seniors mentoring freshmen; business people mentoring teachers
- Professional development focused on sustained development in a few crucial areas
- Leadership: solid, uncharismatic administrators who stay a long time; no department chairs or CTE directors; rather, chairs of interdisciplinary departments, with teams of teachers working with one group of students

Willard Daggett’s presentations contributed much to the participants’ thinking and to the conference products, to which we now turn.

The Positive Core of CTE

In paired interviews and small-group discussions, participants were asked to identify the “positive core” of CTE – its qualities and attributes when CTE is at its best, the core strengths of CTE to build on in the future. A synthesis of the discussions highlights these attributes, arranged under four large categories:

Applied Learning Model

- ❖ Integration of knowledge and application; translation into real life skills through hands-on, applied learning, reinforcing academic concepts
- ❖ Opportunities relevant to students’ interests and aptitudes
- ❖ Natural links to academics and to business and industry

Student Engagement

- ❖ A voluntary alternative, accessible to all
- ❖ Student involvement in learning and teaching
- ❖ Love of learning, leading to lifelong learning
- ❖ Practicing work ethic in an adult environment
- ❖ Increased student confidence, self-esteem

A Committed Faculty

- ❖ Supported and inspired by its close ties to industry
- ❖ Passionate and knowledgeable
- ❖ Flexible – able to individualize learning for students

Relationships

- ❖ Teacher-student relationships are human, personal
- ❖ Students feel valued
- ❖ Small class size

External Factors and Forces Influencing the Future of CTE

Participants turned next to the environment outside the CTE system, identifying a variety of forces which, because they will affect CTE's future, must be kept in mind throughout the planning process. The planning committee suggested four categories for discussion, and participants identified forces within each, as follows:

Education

- Silos, resulting in isolation, poor communication, lack of integration
- Regionalization efforts
- Funding
- Fewer students in the future
- Federal and state mandates: No Child Left Behind (NCLB), Maine Learning Results (MLR)
- Need to change curriculum to meet needs of society
- Technology: e.g., Maine Laptop Initiative (MLTI)
- Education based on students' needs, not adults'
- Meeting the needs of all students
- Standards-based requirements
- Professional development – technology

Workforce and Economic Development

- Increasing cost of living,
- Cost of doing business: not a business friendly state so new business doesn't come in
- Increasingly higher skill levels of workers needed
- Quality of life
- Internet (telecommunications system)
- Low R & D spending
- Aging workforce that needs new/more skills to vie for today's jobs
- Diversity (population, resources, education) creates difficulty for a state-wide economic development strategy
- Minimal engagement between business and education
- Changing needs of business and industry
- Lack of resources available to make changes
- Geography

Politics and Policies

- Lack of vision at national, state and local levels
- Financial support for Essential Programs and Services – articulation of CTE?
- Rules and regulations act as barriers
- Federal and state legislation—certification, MLR, NCLB
- Demographics/aging population
 - Thinking creatively the norm!
 - Financial support

Technology

- Money: Bridging the gap between present and future allocations

- Ethics
- Rapid, constant rate of technological growth (software and hardware)
- Educational technology (MLTI, PLATO, etc.)
- Staff development and training – need for technological literacy
- Purpose/content
- Mindset/support of all stakeholders
- MEDMS, data issues

Toward A Vision for the Future of CTE

Participants prepared for their visioning activity by identifying their shared wishes for the future of CTE. The common themes among the wishes were:

- Integration of academic and CTE programs
- Enhanced financial support
- Rigorous programming without losing the applied aspect
- CTE available to all students
- Decreased stereotyping of CTE and those in the program
- Students at the center

In small groups, participants went on to discuss how best to translate their wishes into genuine possibilities for the system. Nine groups produced a long series of possibilities, and the reports were remarkably consistent with each other. All conference participants then took part in a prioritizing activity, identifying seven areas for visioning:

1. Literacy (prose, documentary, quantitative) for *all* students, *all* content areas
2. Integration of academic and CTE programs
3. Ensure quality, relevance, and viability through systematic, data-driven, continuous improvement
4. Rigor: programs ensuring student access to/success in both college and high-skills employment
5. Partnering with business and industry (R&D, state, local)
6. A systems approach to statewide initiatives
7. Student needs at the center

As working groups prepared to create their vision statements, Patrick Phillips, Deputy Commissioner of Education, asked the participants to bear in mind the many connections that might be made with the following groups:

- Chapter 127 checklist
- Regional professional development centers
- Gender Task Force
- Citizenship Education Task Force
- Compact for Higher Education
- College Ready Maine
- Maine Learning Results Review
- P-16 Task Force
- Great Maine Schools

- Laptop Initiative (MLTI)
- Governor's Economic Development Task Force

Visionary Statements and System Design Recommendations

The major products of the conference were forward-looking, compelling statements written in each of the seven areas identified above, followed by participants' recommendations about innovations in the system itself and strategies for moving toward the vision. These are presented together under each area.

The system design elements proposed by the planning committee for participants' consideration were these:

1. Educational practice (instruction, assessment, etc.)
2. Program design (curriculum, standards, etc.)
3. Students & student services
4. Leadership
5. Structure (delivery models, facilities, finance, etc.)
6. Relationships: internal, external
7. Access and equity
8. Professional development
9. Regulation and policy

The Seven Vision areas

1. Literacy

Vision:

We support all students to achieve the level of literacy they need to be successful in their chosen field(s) of study. Explicit instruction in general literacy strategies and those specific to the discipline is central to the pedagogy and curriculum of all courses. We recognize students' strengths and prior knowledge and engage them in creating meaning and applying higher-order thinking skills. We regularly assess students' levels of literacy and use them to guide further instruction and support. Students regularly apply literacy skills as they research areas of interest, learn new concepts and skills, and solve real problems.

Design Elements and Strategies:

Design Elements	Literacy, K-12
Educational Practice	Include literacy emphasis in all course and content areas, 4th-grade and up. Apply technological literacy in early grades. Every CTE educator will incorporate best literacy practices in their curriculum and instructional program: Does it work for kids? (interests, aptitudes etc.) Every student will be able to access both print and non-print materials used in their learning, because of strategies employed by teachers.

	Student Assessment results inform instruction and are included in supervision and evaluation
Professional Development	Every (CTE) educator will have the beliefs (“We can do it”), skills, and knowledge to integrate effective literacy practices. • Every CTE school will employ a literacy specialist • Courses (on-line, P&D, ATM), study groups, lesson studies and other delivery models will be used. • On-going classroom peer supporters (mentorship) • Address the need for literacy (Daggett video)
Program Design	Maine Learning Results will include performance indicators that address functional, applied, quantitative, technical literacy skills in all content areas. • Ensure that CTE educators are involved with the review of MLR (bring materials to capture text features) • Connect new performance indicators to assessment • Curriculum review at the local level to ensure alignment.
Leadership	Leadership from school boards, state government, business community, legislature, Associations (SBE, MACDE ?, PTA), and agencies (also advisory committees, superintendents, CTE directors, teachers, leaders, etc.) All share and take action on the vision of literacy for all students. • Show Daggett video on literacy • Workshops and conferences include: - o Literacy (MSMA, MPA etc.) – ongoing - o Keynotes and displays - o Governor sponsors Blaine House Conference - o Ensure this issue is included in Coalition’s public information campaign
Student Awareness	• Students from model programs testify before education committee • Public message: “Being #1 is not good enough” • Adopt a data-driven C.T. model for decision-making
Access and Equity	• Literacy achievement • High performance expected of <i>all</i> students • Equitable access to materials, programming, and individual support for students and teachers - o Monitor progress using Lexile scale - o Connect with gender task force - o Address barriers to female access to engineering - o Eliminate barriers to male access to careers in health sciences and early childhood

2. Integration

Vision:

The educational system in Maine integrates rigorous and relevant career, academic, interpersonal, technical, and life skills with applied learning models in all aspects of the teaching and learning process, for all students at all grade levels. Thus we ensure the greatest probability of success in our students' personal and professional lives. In appreciation of each individual's strengths, interests, and limitations, our schools support all students in building social, academic, and technological literacies that will serve them throughout their lives.

Design Elements and Strategies:

Create a core curriculum comprising career interests and academics

- Design by career cluster/area of interest, with an increasing focus on careers through grade progression
- Develop program quality standards (revise, then pass through rulemaking)
- Create interdisciplinary looping teams or multi-grade teams
 - Provide professional development – very important
 - Collaborate with higher education (co-enrollment) and business
 - Implement program evaluation and student success evaluation (lots of data)
- Include higher education, especially teacher preparation
- Remove physical barriers in and between buildings, and intersperse labs/classrooms.

For further work: Design elements #1, 8, and 9 (Educational practice, Professional development, Regulation and policy)

3. Quality, Relevance, and Viability through Systematic, Data-driven, Continuous Improvement

Vision:

We base all decisions and allocations of resources on rigorous analysis of relevant data to ensure that all Maine students benefit to the fullest extent. The following areas are under continuous review:

- *Student characteristics*, including learning styles, aptitudes, interests, and achievement levels;
- *Professional development*, with measured progress in only a few key areas, based on a wide variety of data sets and sources;
- *Program/curriculum development*, informed by a variety of assessment data and consultation with partners, and aligned with student interests and business/post-secondary requirements;
- *External coordination* -- data shared among CTE programs/centers and sending schools, state, and post-secondary education.

Strategies:

1. Establish rigorous program benchmarks, accounting for characteristics, standards, and outcomes. These include skills based on national industry standards, academic outcomes, graduation rates, postsecondary and career success, and collaboratively determined outcomes.
2. Establish protocols that encourage innovation (not constrain it—policy, etc.) and flexibility.

3. Enhance MEDMS to incorporate data analysis among *all* education partners and experiences for *all* students at all levels, K-16.
4. Determine and measure progress on key literacies and 21st-century academic outcomes.
5. Provide pre-post tests for necessary skills and knowledge.
6. Data must enable multi-level coordination and continuity, K-16 (articulation, early college, etc).
7. Identify data needs in MLR, and what is irrelevant or unnecessary.
8. Key element: capacity to use data for monitoring (e.g., the CTE Advisory Committee's implementation of this strategic plan should be monitored).

For further discussion: How to include Bill Daggett's 9th-grade exploration and 12th-grade focus on careers?

4. Rigor

Vision:

We offer educational programs in a dynamic, responsive, and collaborative environment, with high expectations and standards. We provide learning opportunities that match the needs and interests of students and ensure their entrance into and success in post-secondary education and high-skills employment.

Design Elements:

1. Instruction, curriculum development, regulatory issues, and professional development:
 - Curriculum: enabling skills and competencies; broad content focus in 9th-grade, narrower in 12th
 - Literacies: math, science, reading, technology, life
 - National standards and industry standards
 - Ensure that curriculum is consistent with business and industry standards
2. Identify underlying skills & competencies relating to the curricula of math, science, communication, technology (computers), social skills
 - Clusters = similar programs
3. Select what skills and competencies are needed to be incorporated into CTE
4. Research-based professional development program: provide teachers with the skills and knowledge necessary to empower students to engage with the content and see its relevance to their lives.

Strategies:

- Create committee of appropriate stakeholders to carry out goals listed here
- Identify and convene appropriate group of stakeholders to review curriculum and identify core skills, core cluster skills, and program-specific skills

5. Partnership among Education, Business, and Industry

Vision:

A collaborative partnership of education, business, and industry creates a highly responsive and flexible relationship that meets the demands of an ever-changing environment through:

- Shared resources
- Technological links
- CTE as incubator for products and processes, and business as incubator of CTE programs

- Training sites shared among businesses, industries, and education
- Collaboration among academic and CTE teachers and those in business and industry
- A two-way street for all, across whole educational spectrum.

Strategies:

1. Identify state associations that relate to cluster groups—match associations to programs at regions and centers
2. Select members from associations to work with programs
3. Strengthen and expand superintendents’ advisory boards and craft committees to include association members
4. Restructure local advisory committees to include all educational modes (academic, CTE, adult education) and business partners (integrate into academic model)
5. Collaborate in all aspects: facilities, equipment, supplies and training.
6. Ensure that research and development (state and national) are factored in with the partnerships.

Associations to consider: Maine Chamber of Commerce, Maine Safety Council, Maine Forest Products, National Guard, Maine Hospital Association, Maine Health Care, Maine Public Relations Committee, Maine Tourism, Maine Pulp and Paper, ASCE, Maine Motor Transport, MPG, Maine Dairy Council, Natural Resources Council, Maine Municipal Association, Maine Firefighters, Maine Law Enforcement, Maine Automobile Dealers Association, ABC, ACM, Maine Culinary, Maine Retailers, Maine Realtors

6. Systems-based Consolidation of Statewide Initiatives in Education

Vision:

The State of Maine incorporates educational initiatives, K-16 and lifelong, in a student-centered, statewide, systems-based consolidated plan that is data-driven, accountable, and supported by all stakeholders of the community.

Strategies:

1. Convene representatives from the initiative groups to identify common themes centered around the latest research (e.g., Bill Daggett’s information). Include teachers and students in stakeholder groups. Stakeholder group must have the power to implement.
 Sample stakeholders: SBE, DOE, MJC, MAVEA, MPA, MSBA, teachers, students
 SBE – Teachers Colleges, Carl Perkins
 SBE-DOE -- Certification, ESP, Rev. MLR – Career – Legislature?
2. Connect or collapse multiple initiatives wherever possible.
3. Set up working groups on each initiative and bring the right people together for each one.
4. Restructure DOE to better meet the needs of the vision from this group.
5. Develop criteria to evaluate educational initiatives; for example,
 - Data Driven/Analyzed
 - Student-centered
 - Outcome-based/warranted (measurable)
 - Collaborative
6. Stakeholders inform and advise legislature, education committee, and other state leaders.

7. Student-centered Learning

Vision:

We embrace the natural learning capacity and desire for authentic learning that each learner brings to our educational community. We commit ourselves to our students, learning from them and with them, knowing where their passion and talents lie, and providing an environment in which their skills, knowledge, and commitment to life-long learning can grow. This is evidenced by:

- A student voice in decision-making
- Participation in student service organizations
- Students' taking ownership for their learning
- Faculty recognition that students can learn from their mistakes as well as successes.

Design Elements and Strategies:

Need to define "student-centered": means many things to different people.

Professional Development: Provide teachers the opportunity to extend their knowledge and skills, grounded in research that empowers students' active engagement/participation in content and life, which impacts decisions. Design "laser-focused" staff development to create student-centered schools. Enhance professional development collaboration.

Relationships: Ensure that students feel valued, accepted, and uniquely part of the larger positive community. Reduce student/teacher ratios in order to build personal relationships, foster mentoring, and look beyond high school.

Reviewing the CTE Mission

As the conference drew to a close, the participants took the opportunity to review the CTE mission statement in the light of their vision for the future. The task was to offer options and recommendations to the statewide CTE advisory committee, which will discuss the mission over the summer and bring a revised statement to the conference on September 15, 2004.

This is the current statement:

*The mission of Secondary Career & Technical Education in Maine
is to provide programs and services for youth
that assure the acquisition of high quality technical skills
and relevant academic subject matter that will prepare them for entry
into the workplace or postsecondary education.*

Asked to affirm this statement or suggest new phrasing, working groups had various responses to the current statement. One group stated that it is accurate and adequate as it stands. Other groups offered different alternatives to the current statement, as follows:

Option 1:

The mission of Career and Technical Education in Maine is to provide continually updated learning opportunities that ensure the acquisition of high quality technical and academic skills

that prepare students for entry into highly skilled employment and continuing education in a rapidly changing world.

Option 2:

The mission of CTE is to prepare students for personal and professional success in life.

Option 3:

The mission of education in Maine is to provide learners integrated programs and services that assure the acquisition of high quality knowledge and skills for success in the ever-changing workplace through continued lifelong learning in partnership with business and industry.

Option 4:

The mission of CTE is to inspire students to pursue technical and academic excellence that prepares them for a leadership role in the ever-changing world economy.

Option 5:

The mission of CTE in Maine is to provide programs and services for youth that assures the acquisition of high quality, critical thinking and problem solving skills through technical and academic subject matter preparing them for further education and the ever-changing workplace.

Conclusion

The close of the conference featured a conversation with Susan Gendron, Commissioner of Education. Participants read the vision statements aloud, and Ms. Gendron responded positively to them and said that she looked forward to the complete strategic plan after the follow-up conference in September. Participants generally expressed satisfaction with their work and left feeling optimistic about the completion of the strategic plan.

As noted above, the CTE Advisory Committee will complete a draft plan over the summer and distribute it before the conference on September 15. The focus of that one-day conference will be to review all aspects of the draft plan and make changes participants may want to recommend.

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